FILE M001/039

State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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Michael O. Leavitt
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Dianne R. Nielson, Ph.D.
Executive Director
Don A. Ostler, P.E.
Director

August 4, 1998

Mr. Rick Havenstrite
Nevada Star Resource Corp.
2113 No. Cottontail
Cedar City, UT 84720

Dear Mr. Havenstrite:

Subject: Review of Compliance Schedule Items, Permit No. UGW010005

We have reviewed the BAT Monitoring Plan and Water Quality Monitoring QA/QC Plan, which were submitted as compliance schedule requirements for the OK Mine's Ground Water Discharge Permit. We have also reviewed the Conceptual Closure Plan, which was approved in an earlier letter.

1. BAT Monitoring Plan

We recommend changes in the language, as indicated in the redline/strikeout version at the end of this letter, to better reflect the actual operation of the liner system and sumps. If you agree with the changes, please formally submit the revised text to us in a letter, so it can be incorporated into our files.

The plan proposes two classes of spills, based on volume. OK Mine will have different procedures for reporting the different classes. The Utah Water Quality Act and Ground Water Protection Regulations require that any spills which may cause pollution of waters of the state must be reported immediately. Only minor spills, which you are sure will have no effects on ground or surface water, do not need to be reported. Based on reported information about a particular spill, you may be directed to follow the procedures in UAC R317-6-6.15 (Ground Water Protection Regulations).

2. Ground Water Sampling, Handling and Analysis Plan

Water level measurements should be made to the nearest 0.01 foot.

Background ground water quality and ground water protection levels apply to dissolved metals only. To obtain accurate background concentrations of metals and avoid unnecessary out-of-compliance situations, all metals samples should be filtered in the field through a 0.45-micron filter. Your laboratory should be able to help with filtering procedures, equipment, and which analytical methods require filtered samples. Please incorporate this information into the sampling plan.

3. Monitor Well As-Built Report

We have not received the monitor well as-built report required in Parl II.H.2(b) of the permit. This report must contain all the information listed in the permit.

4. Conceptual Closure Plan

The Final Conceptual Closure Plan, due within 18 months, should address the following issues:

a. Quality and quantity of leachate after final closure:

After closure, the leach pad should not discharge pollutants to waters of the state, or, if pollutants are discharged, monitoring must be done to insure waters of the state are not being polluted. Plans should be made now during operation of the facility to evaluate any potential impacts it may have on ground water after closure, and to devise closure plans to prevent future problems. The final closure plans should have a program of testing the ore materials during operation to determine whether acid mine drainage will develop from weathering of the ore after closure, and whether acids used to leach the ore can be successfully removed or neutralized before final closure. The results of this testing program should be able to predict the chemistry of leachate from the ore after final rinsing.

b. Adequacy of final cover

Based on the testing described in (a) above, if the final leachate has any contaminants which have concentrations higher than the ground water quality standards in Table 1 of UAC R317-6, an appropriate cover must be designed to minimize percolation of rainfall through the tailings. Design performance must be verified by use of modeling, such as the HELP model or similar. Alternatively, containment and treatment of the leachate may be an option, but this will involve post-closure operation and maintenance. In this case, requirements for collection and treatment of the leachate may be contained in a revised version of the ground water permit, to be issued upon closure. If final leachate quality is compatible with receiving ground water, no closure requirements beyond those imposed by other agencies may be needed.

Please provide us with revised copies of the BAT Monitoring Plan and Ground Water Sampling, Handling and Analysis Plan within 30 days. Please contact Mark Novak or Lyle Stott if you have any questions.

Sincerely,

Mark T. Novak

Mark Novak, Environmental Scientist
Ground Water Protection Section

MN:mtn/fb

cc: Tom Munson, DOGM
Lyle Stott
Southwest Utah Health Dept.
Scott Hacking

P:\WQ\PERMITS\MNOVAK\WP\OKMINREV.LTR
FILE:OK Mine

[Revisions to text of BAT Monitoring Plan]

Summary- The OK Mine heap leach contains many safeguards for the protection of groundwater at the site. The heap leach pad is entirely underlain by a gravel and pipe leak detection layer. This layer, designed to detect failure of the composite clay and plastic liner ~~will~~ should report ~~major~~ leakage which penetrates the composite, ~~clay and plastic~~, liner. In addition, three down-gradient groundwater monitoring wells will be employed to monitor for leaks which have the potential to affect groundwater quality. There will also be an up-gradient monitor well which will be used to establish background quality as well as determine possible changes in baseline quality as the result of natural events.

It is recognized that monitoring safeguards will not be useful without a monitoring plan to insure proper, consistent, and accurate, and well documented data collection. As such, the monitoring plan, as detailed in this section, will be implemented upon the commencement of operations.

Leak Detectors-

Ponds: There will be three leak ~~detector~~ collection sumps in ponds; two in the PLS (Pregnant Liquor Solution) pond and one in the Raff (Raffinate) pond. Each of these will be fitted with automatic start discharge pumps. These pumps will turn on in the event solution fills the sump. The pumps will feed a discharge line with a flowmeter installed. This flowmeter will report total flow for each week as well as an accumulated total.

A light will be affixed to a moisture sensor located in the leak detection sump. This light will indicate ~~the presence~~ a pumpable level of solution in the ~~detection~~ collection sump.

Once each week, the system will be checked. In the event that the pumps have discharged solution, the amount of solution pumped during the week will be recorded. If no leakage is reported, this will be indicated. A visual inspection will also be made. The person entering the information shall note the date of inspection, the time, the location, the total flow, and the flow per day. The information will be written in ink in the log book and will be signed by the reporting person.

143 SOUTH MAIN ST.
P.O.BOX 45838
SALT LAKE CITY, UTAH 84145
FED.TAX I.D.# 87-0217663

Newspaper Agency Corporation

Th[redacted]Lake Tribune (NAC) DESERET NE[redacted]

CUSTOMER'S COPY

M/001/039

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL GAS & MAINING 1594 WEST NORTH TEMPLE, SUITE 1210, BX 145801 SALT LAKE CITY, UT 84114	D5385340L-07	08/13/98

ACCOUNT NAME	
DIV OF OIL GAS & MAINING	
TELEPHONE	**INVOICE NUMBER**
801-538-5340	TL8A8201081
SCHEDULE	
...ART 08/13/98 END 08/13/98	
CUST. REF. NO.	
M/001/039	
CAPTION	
... TENTATIVE DECISION T	
SIZE	
...INES 2.00 COLUMN	
	RATE
	1.64
	AD CHARGES
	321.44
	TOTAL COST
	321.44

NOTICE OF TENTATIVE DECISION TO APPROVE NO. M/001/039
BEFORE THE DIVISION OF OIL GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF TENTATIVE DECISION TO APPROVE THE MINING AND RECLAMATION PLAN FOR NEVADA STAR CORPORATION'S OK COPPER MINE, BEAVER COUNTY, UTAH

THE STATE OF UTAH TO ALL OPERATORS, TAKERS OF PRODUCTION, MINERAL AND ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS INTERESTED IN SECTIONS 5, 6, 7 AND 8, TOWNSHIP 27 SOUTH, RANGE 11 WEST, SLBM, BEAVER COUNTY, UTAH.

...AVIT OF PUBLICATION

...TION LEGAL BOOKKEEPER, I CERTIFY THAT THE ATTACHED ...F TENTATIVE DECISION T FOR ...G WAS PUBLISHED BY THE NEWSPAPER AGENCY ...ALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS ...AGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED ... COUNTY IN THE STATE OF UTAH.

...T 08/13/98 END 08/13/98

NOTARY PUBLIC
JOANNE MOONEY
2626 Hartford St.
Salt Lake City, UT 84106
My Commission Expires
March 31, 2000
STATE OF UTAH

...MENT BUT A "PROOF OF PUBLICATION" ... FROM BILLING STATEMENT.

2831 RED NMPMTOIN

aggrieved by this tentative deci-
sion to issue approval is hereby

M/001/039

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
CEDAR CITY DISTRICT
BEAVER RIVER RESOURCE AREA
176 East D.L. Sargent Dr.
Cedar City, Utah 84720

IN REPLY REFER TO:
UT-044
3809
UTU-76662

September 16, 1998

Mr. Rick Havenstrite
Nevada Star Resource Corp.
10735 Stone Avenue North
Seattle, WA 98133

Dear Mr. Havenstrite:

This letter is in regard to your plan of operations submitted to this office on June 27, 1998, for the Milford District Copper Project. The plan of operations covers 173.4 acres of private and Federal lands located within portions of Secs. 17, 21, & 22, T. 27 S., R. 11 W., Beaver County, Utah. The plan also serves as an amendment to the OK Mine Project (DOGM Permit M/001/039), located entirely on private lands.

The environmental assessment (EA) process for the proposal resulted in a Finding of No Significant Impact, subject to certain mitigation measures, and the EA was signed by the Area Manager on September 16, 1998. The plan of operations is approved subject to inclusion of these mitigation measures as part of the plan. The EA was subject to public review and comment for a 15 day period beginning on August 31, 1998. We did not receive any comments on the proposal during this period.

If you have any questions feel free to call me at (801) 865-3040.

Sincerely,

Ed Ginouves
Mining Engineer

Attachment:: Nevada Star Milford Copper Project EA

xc: Tom Munson, DOGM

Decision Record

Milford Copper Project
EA Number UT-044-98-34

Decision: It is my decision to authorize the proposed action as described in the environmental assessment report including the mitigation measures contained in the attached Finding of No Significant Impact (FONSI). A public comment period was offered between August 31 and September 15, 1998. No comments were received.

Rationale for Decision: The decision to allow the proposed action does not result in any undue or unnecessary environmental degradation and is in conformance with the Pinyon Management Framework Plan approved June 10, 1983. The proposed action was chosen because the copper metal to be extracted is needed in society, the project will have a positive impact to the local economy, and environmental consequences were not determined to be at a level which would prohibit the action.

Compliance/Monitoring
The area will be monitored at least once a year to determine compliance with this document and mitigation measures.

Craig L Eggett — 9/16/98

Area Manager — Date

Finding of No Significant Impact

Milford Copper Project
EA Number UT-044-98-34

Finding of No Significant Impact: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that, if the following mitigation measures are implemented, impacts from the proposed action are not expected to be significant and an environmental impact statement is not required.

Mitigation Measures

1. To offset the financial burdens of increased difficulty of herding and reduction of available forage the operator can choose either of the following mitigation measures:

   a. Allow access to the grazing lessee to well water not to exceed 2,500 gal/day during the grazing season, a period of no more than 90 days/year.

   b. Provide a lease of 5 AUM's on private land adjacent to the present grazing allotment boundary for the period forage will be unavailable on the disturbed sites.

2. To compensate for habitat loss and disturbance from the mine, three wildlife guzzlers will need to be installed within the flats south of the mine site. The design and placement of the guzzlers will be provided by the DWR/BLM. Estimated material costs for the three guzzlers will be about $4,000.

3. Noxious weeds will be controlled by methods approved by the authorized officer.

4. When reclamation is carried out, if practical and economically feasible, consider the following additions to the reclamation plan:

   a. Seeding the topsoil with mycorrhizae to encourage soil microbe activity and increase success of seeded plant species.

   b. Seeded areas should be mowed as necessary to limit weed species to a height of 6" until desirable seeded species are fully established.

5. The final seed mix will be determined by the authorized officer.

Area Manager

9/16/98
Date

I. INTRODUCTION

Need for the Proposed Action

Copper is the third most used metal, behind iron and aluminum, in the United States. The metal has diverse and well established uses on which modern society relies heavily. Total copper demand in the United States in 1997 was estimated at 6.23 billion lbs. While 36% of this demand is being met by scrap recovery and recycling, the remainder must be extracted from naturally occurring orebodies of copper-containing minerals. The proposed action intends to extract copper from such naturally occurring orebodies on Federal and private lands.

Consistent with section 2 of the Mining and Policy Act of 1970 and section 102(a)(7), (8), and (12) of the Federal Land Policy and Management Act, it is the policy of the Department of the Interior to encourage the developemnt of Federal mineral resources and reclamation of disturbed lands. Under the mining laws a person has statutory right, consistent with Departmental regulations, to go upon the open Federal lands for the purpose of mineral prospecting, exploration, development, extraction, and uses reasonable incident thereto.

Conformance with Land Use Plan

The proposed action has been reviewed for conformance with the MFP. Although this action is not specifically mentioned in the plan, the proposed action would be clearly consistent with the terms, conditions, and decisions of the MFP. There are no resource conflicts identified in the MFP in the area of the proposed action.

II. PROPOSED ACTION AND ALTERNATIVE

Proposed Action

Nevada Star Resource Corporation has submitted an amendment to an existing, approved State of Utah Division of Oil, Gas, and Mining permit (M/001/039, OK Mine Project). The existing permit covers a plan to extract up to 30,000 lbs./day of copper via open pit mining, heap leaching, and solvent extraction/electrowinning (SX/EW). Except for a power line ROW, this existing plan involves only private property currently owned or controlled by Nevada Star Resources at the southern end of the Beaver Lake Mountains, Beaver County, Utah. The number of acres to be disturbed through the existing plan was given as 277.

The amendment to this existing plan, being the proposed action, would expand the original proposal to include open pit mining, dumping of waste rock, removal of stockpiled low-grade ore, and haulage of ore from Federally-managed (BLM) lands and private property in the Rocky Range northwest of Milford, Beaver County, Utah. Low-grade copper ore in the form of open pit recoverable copper ore bodies and previously mined and stockpiled ore would be hauled to a prepared leach pad located on private land, crushed and stacked, and leached of its copper content using a dilute solution of sulfuric acid. The copper-acid solution would be conveyed to an adjacent facility, also located on private land, to be processed to 99.998% pure copper cathode sheet using the method of SX/EW. A total of 173.4 acres of land would be impacted directly by the proposal; 141.6 acres of BLM land and 31.8 acres of private property. The disturbances on public land would consist of removal of existing low-grade stockpiles, expansion of two existing open pit mines (the Maria and Hidden Treasure) and their associated waste dumps, development of a new open pit mine (Copper Ranch), and widening of existing roads to serve as haul roads. The proposal does not include the disturbances related to the heap leach - SX/EW facility to be constructed on private land. These are covered by the existing permit M/001/039, O.K. Mine.

Removal of previously stockpiled ore would be via front end loaders and haulage trucks. Open pit extraction of in-place orebodies would be accomplished by drilling and blasting, loading the broken rock with front end loaders and haulage with off-highway haul trucks. Ore would be hauled to the heap leach facility located on private land; waste rock mined would be hauled to a waste dump constructed adjacent to the open pit. Dust control would be affected by the use of water, chemical suppressants, and binders. Identified reserves are sufficient to maintain activity for 8 years, based on the proposed production rate of 30,000 lbs. of copper/day. It is possible that additional reserves will be identified for extraction and processing, which would extend the period of operation. Operations would be conducted year round.

Reclamation of the open pits created or expanded by this project would consist of constructing a safety berm around the perimeter of the pit area. No backfilling or slope reclamation of the pits is proposed, the cost of which would render the project uneconomic. No topsoiling of pit areas would be performed. Reclamation of the waste dumps will entail regrading all dump surfaces to a maximum gradient of 3H to 1V, covering the entire surface with one foot of alluvium/topsoil, scarifying, and seeding with an approved mix of plant seed.

The proposed mines, heap leach pads, and solvent extraction/electrowinning facility would be permitted with all necessary Federal and State agencies. Nevada Star Resource Corp., or any other company obtaining the contract, would comply with all Federal, State and local laws.

If the operation is obtained by a company other than Nevada Star Resource Corp., the operational procedures and timing may vary from those stated in this document. If changes were proposed which would alter the environmental impacts from those stated in this environmental assessment, a new environmental assessment would be completed.

No Action Alternative

Under this alternative, the mine plan as submitted would be denied. The copper to be produced by the project would be supplied to consumers via competing copper producers both domestic and foreign.

III. AFFECTED ENVIRONMENT

The proposed mining operation would be located at the southern section of the Rocky Range, a small isolated mountain range about four miles northwest of Milford, Utah. The range has been extensively disturbed by prior underground and surface operations for copper. The principal disturbances include four open pit mines of 10-20 acres each and associated waste dumps which cover a total of about 100 acres. Elevations range from approximately 5000 to 6000 feet above sea level. Current land use is predominantly mineral exploration and livestock grazing.

Resources which are not present in the area or are not anticipated to be impacted by the proposed action are itemized below.

CRITICAL ELEMENTS

Critical Element	Affected Yes	Affected No
Air Quality		X
ACECs		X
Cultural Resources		X
Environmental Justice		X
Farmlands, Prime/Unique		X
Floodplains		X
Native American Religious Concerns		X
Native American Trust Rights		X
T & E Species		X
Wastes, Hazardous/Solid		X
Water Quality		X
Wetlands/Riparian Zones		X
Wild & Scenic Rivers		X
Wilderness		X

Any air quality impacts would be mitigated by the dust control measures described in the original plan, to include the use of dust suppression and binder chemicals to be applied to the haul roads. A cultural resource inventory has been completed. One site was found which might be eligible for inclusion on the National Register of Historic Places. If it is determined to be eligible, the cultural resources would be mitigated before mining operations began. Wastes would be disposed of in accordance with existing regulations. There are no Areas of Critical Environmental Concern (ACECs), farmlands, floodplains, Native American religious concerns, surface waters, or wilderness areas in the location of the proposed action.

No ground water has been encountered in any of the exploration holes drilled to date in and adjacent to the proposed pits and dumps. Ground water in the vicinity of the proposed pit and dump disturbances is known to be at least 200' below the proposed pit bottoms based on the depth of these exploration holes. The lack of significant primary sulfide mineralization in the orebodies to be extracted, the basic pH of the ore and waste rock, and the arid environmental conditions effectively preclude any possibility for acid mine generation on the waste dumps or in the pits.

Two threatened and endangered species occur in the general project area. Bald eagles are uncommon to rare winter visitors in the Beaver-Minersville area and may occasionally pass through the Milford area while hunting. Peregrine falcons are rare summer residents of Utah and may occasionally migrate through the project area. No peregrine eyries are known to occur within 30 miles of this site. Sensitive animal species that occur in the project area include the ferruginous hawk and burrowing owl. A field inspection of the project area was made on July 21, 1998 and no

occurrence or sign of these two species or other nesting raptors was found. There is limited suitable nesting habitat for ferruginous hawk or burrowing owl in the project area.

The area is in a Visual Resource Management (VRM) Class IV area. This class allows for noticeable changes in the landscape. Visual resources would be affected until reclamation is complete. These changes would be within allowable limits and will consequently not be discussed further in this document.

Resources which would be impacted and could not be completely mitigated include minerals, range, vegetation, and wildlife.

Minerals

The Rocky Range is composed of highly altered and mineralized metasedimentary rocks in the south end of the range and igneous rocks in the northern end of the range. The range consists of Permo-Triassic rocks which have been overridden by a thrust sheet of Cambrian dolomites. Volcanic andesitic and latitic flows blanketed the northern section of the range, which was later intruded with predominantly quartz monzonites and granodiorites. Basin and range associated block faulting has probably occurred in the range, but evidence is covered by alluvial piedmont slopes (Whelan, 1973 and Welsh, 1973).

The proposed action would remove about 10 million tons of waste rock overburden from the three open pit areas, and an additional 2-3 million tons of rock mineralized with copper.

Range

The proposed area is in the Bagnal Allotment that is grazed by 2200 sheep from 12/08 to 2/28 each year. There are 1200 active Federal Grazing Preference AUMs (Animal Unit Months) permitted on Bagnal Allotment.

Vegetation

Soils and vegetation would be affected due to the large acreage of proposed disturbance. The ecological sites are Semidesert Loam(#451) and Semidesert Gravelly Loam (#453). Primary Shrub is Wyoming big sagebrush. Dominant grasses are Indian ricegrass and galleta (curlygrass).

Wildlife

The area around the mine site is high priority year-long pronghorn antelope habitat and receives some use by mule deer. Other wildlife species that occur in the area include golden eagle, bald eagle, ferruginous hawk, kit fox, Great Basin rattlesnake, blacktail jack rabbit, cottontail rabbit, other small mammals, and various songbirds.

IV. ENVIRONMENTAL IMPACTS

Proposed Action

Minerals

Direct and Indirect Impacts

About 88 million lbs. of copper in the form of low-grade copper mineralization in 2-3 million tons of rock would be permanently removed from public land and private land. An additional 10 million tons of waste rock would be excavated and dumped on public and private land covering 93.8 acres. The local topography would be altered both by the creation and expansion of open pits and by the dumping of waste overburden.

Cumulative Impacts

The proposed mine operation is adjacent to two existing surface copper mines (the Bawana Pit and Montreal Pit) and one underground copper mine (the Harrington-Hickory) that are presently inactive. A large rock quarry is located two miles northeast of the center of the proposed mine operation which is extracting up to a million tons/year of igneous rock which is sized for use as railroad ballast. Known copper resources associated with the OK Mine at the south end of the Beaver Lake Mountains, 4 miles to the northwest of the project area, would also be reactivated by the project to supply low-grade copper ore for heap leaching.

Range

Direct and Indirect Impacts

The proposed mining activities would result in the loss of 5 AUM's of sheep forage. This is based on 89 acres of total new public land disturbance (land that has forage presently on it) divided by 20 acres/ AUM. Increased traffic along the roads would increase the possibility of sheep mortality. Open pit blasting may disrupt the herd and cause scattering and increased herding efforts and time.

If Halogeton became established, then the loss and illness of sheep may be a problem. Additional work would be required of herders near Halogeton areas. This could result in a long term impact due to the difficultly of eradicating Halogeton once it is established.

Cumulative Impacts

The Bagnal Allotment has lost 8 AUM's to another mining operation in the vicinity, the Twin Mountain rock quarry. If other mines become active in the area, moving sheep around these areas would become more difficult. Some areas could become dangerous and difficult for sheep use. Herders might avoid using certain areas. Loss of palatable vegetation could become substantial enough to be one of the factors in a reduction of authorized use. There are limited opportunities to increase palatable vegetation by manipulation in areas not affected by mining.

Vegetation

Direct and Indirect Impacts

If re-vegetation efforts were not successful then the effects from the loss of forage would become a long term loss.

Seeding establishment is difficult on soil without sufficient microbial activity. The alluvium that would be used as the bulk of the re-vegetation surface would have almost no microbes (mycorrhizae) that help roots absorb water, nutrients and minerals, and hence re-establishment of vegetation.

Cumulative

The cumulative effects on vegetation would depend on the success in re-establishment of vegetation on the waste dumps. Permanent loss of vegetation from the new and expansion areas of the open pits (about 15 acres) would be partly offset by re-establishment on the area presently covered by low grade stockpiles (5 acres).

Wildlife

Direct and Indirect Impacts

The new mining and leaching operations will cause direct loss of wildlife habitat as well as reduced value of surrounding habitat because of disturbance from noise and human activity near the mines, along the haul road, and around the leaching area. About 50 acres of antelope habitat would be lost during development and operation of the mines, primarily along the haul roads and waste dump sites.

Cumulative

Habitat presently unavailable under the low grade ore piles would be regained after reclamation. Overall impacts to wildlife would be minimal.

Alternative 1 - No Action

Under the no action alternative none of the resources mentioned above would be impacted in this area. The copper resource present on private lands controlled by the applicant are likely insufficient to render the project economically feasible, and hence none of the copper resource would be recovered. Several areas of pre-law mining disturbances (that are presently unreclaimed), that are proposed for redisturbance through the proposed action, would remain unreclaimed.

Mitigation Measures

1. To offset the financial burdens of increased difficulty of herding and reduction of available forage the operator can choose either of the following mitigation measures:

    a. Allow access to the grazing lessee to well water not to exceed 2,500 gal/day during the grazing season, a period of no more than 90 days/year.

b. Provide a lease of 5 AUM's on private land adjacent to the present grazing allotment boundary for the period forage will be unavailable on the disturbed sites.

2. To compensate for habitat loss and disturbance from the mine, three wildlife guzzlers will need to be installed within the flats south of the mine site. The design and placement of the guzzlers will be provided by the DWR/BLM. Estimated material costs for the three guzzlers will be about $4,000.

3. Noxious weeds will be controlled by methods approved by the authorized officer.

4. When reclamation is carried out, if practical and economically feasible, consider the following additions to the reclamation plan:

   a. Seeding the topsoil with mycorrhizae to encourage soil microbe activity and increase success of seeded plant species.

   b. Seeded areas should be mowed as necessary to limit weed species to a height of 6" until desirable seeded species are fully established.

5. The final seed mix will be determined by the authorized officer.

V. PERSONS OR AGENCIES CONSULTED

Rich Havenstrite, Project Manager, Nevada Star Resource Corp.
Stan Beckstrom, State of Utah, Division of Wildlife Resources
State of Utah, Division of Oil, Gas, and Mining

VI. LIST OF PREPARERS

Gus Warr- Rangeland Management Specialist, BRRA. Contributed information pertaining to wild horses.

Steve Hedges - Wildlife Biologist, BRRA. Contributed information pertaining to wildlife resources, threatened and endangered animal species and riparian/wetland resources.

Bob Edwards - Natural Resource Specialist, BRRA. Contributed information pertaining to ACEC's, soils, air quality, flood plains, prescribed burn evaluations, recreation, threatened and endangered plants, hazardous waste, visual resources, water quality, water rights, wild and scenic rivers, wilderness and woodland.

Ed Ginouves - Mining Engineer, BRRA. Project leader. Contributed information pertaining to minerals resources.

Ervin Larsen - Realty Specialist, BRRA. Contributed information pertaining to land status, rights-of-way, and solid waste.

Joseph Jenson - Rangeland Management Specialist, BRRA. Contributed information pertaining to rangeland resources and grazing.

VII. REFERENCES

Edelstein, Daniel L., 1998, Copper, *in* Mineral Commodity Summaries 1998: U.S. Geological Survey, January, 1998, p. 52-53.

Welsh, J.E., 1973, Geology of the Beaver Lake Mountains, Beaver County, Utah: Utah Geological Association Publication 3, p. 49-53.

Whelan, J.A., 1973, Geology of the Rocky Range, Beaver County, Utah: Utah Geological Association Publication 3, p. 55-56.

VIII. ATTACHMENTS

1. General Project Location Map.
2. Photo Index Map with Photographs of Areas to be Disturbed by Proposal
3. Project Checklist.
4. Wildlife Technical Report.
5. Range Technical Report.
6. Utah Division of Wildlife Resources Recommended Mitigation Measures

Preparer — 8/28/98 Date

Reviewer — 8/31/98 Date

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Don A. Ostler, P.E.
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www.deq.state.ut.us Web

-M/001/039

August 31, 1998

Mr. Rick Havenstrite
Nevada Star Corporation
2213 North Cottontail
Cedar City, UT 84720

Dear Mr. Havenstrite:

Subject: OK Mine Monitor Wells, Permit No. UGW010005

I have reviewed your proposed monitor well locations for the OK Mine leach pad, dated August 6, 1998. The geology at the site consists of a thin veneer of alluvial deposits overlying granodiorite. Ground water is most likely in a fracture-flow system within the granodiorite. Because of the alluvium, orientation and width of the fractures is not known.

You propose to drill two monitor wells uphill and downhill of the leach pad. These wells will be used for compliance montoring in addition to two existing wells located near the downhill (south) corners of the leach pad.

Given what is known about the ground water flow system at present, your proposed well locations are appropriate. However, because the characteristics of the fracturing in the granodiorite are unknown, information which will be obtained when all four wells are installed may indicate that the four wells are inadequate for compliance monitoring in this case. We will review data of ground water elevations and chemistry after sampling of the four wells has begun to determine if these wells can give an accurate picture of ground water conditions upgradient and downgradient of the leach pad. It is possible that additional wells may need to be installed in the future to have a valid compliance monitoring program.

Construction of monitoring wells must conform to the standards of the RCRA Technical Enforcement Guidance Document, OSWER 9950.1

Please contact me if you have any questions.

Sincerely,

Mark T. Novak

Mark Novak, Environmental Scientist
Ground Water Protection Section

MN:mtn/fb

cc: Southwest Utah Health Dept.
Scott Hacking, District Engineer
Wayne Hedberg, DOGM

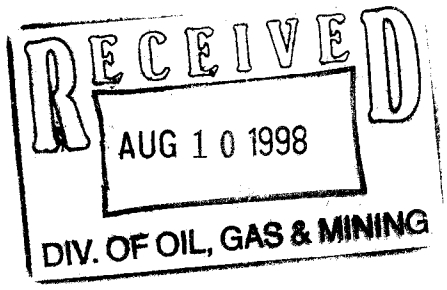
P:\WQ\PERMITS\MNOVAK\WP\OKMMONWL.LTR
FILE:NEVADA STAR OK MINE

M/001/037

Grand Central Silver Mines, Inc.

1010 Ironwood Drive, Suite 105
Coeur d'Alene, Idaho 83814
208-769-7340 FAX: 208-667-7680

August 7, 1998



Mr. D. Wayne Hedburg
Permit Supervisor
Utah Division of Oil, Gas & Mining
Mineral Reclamation Program
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Dear Mr. Hedburg,

As requested, please find below a summary chronology of the changes which have occurred with the Company in the last eight months.

- November 1997: Spenst Hansen contacts Howard Crosby and John Ryan and proposes that they assume management control of Centurion Mines as soon as possible because first, he desires to retire, and secondly, because the Company is in danger of losing its NASDAQ listing since the share price is less than $1.00 per share.

- January 30, 1998: Annual Shareholders Meeting of Centurion Mines. The Shareholders approve a 1 for 10 reverse split; a name change to Grand Central Silver Mines, Inc., (NASDAQ: GSLM) and elect a new Board of Directors including Mr. Ryan and Mr. Crosby.

- February 5, 1998: the new Board convenes for the first time and names new officers. Mr. Crosby is named Chairman and Mr. Ryan is named President.

- March, 1998: Mr. Crosby and Mr. Ryan discover financial irregularities, the details of which are more fully described in publicly filed court documents, and begin a "exploratory" accounting with their own CPA's.

- April 15, 1998: Mr. Hansen resigns from the Board and at that point is neither an Officer or Director of the Company.

- April 28, 1998: the Company filed a lawsuit against Mr. Hansen and other related parties in U. S. District Court, Central Division, State of Utah (Civil No. 2:98CV00300S).

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TRANSACTION REPORT

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M/001/039

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt, Governor
Ted Stewart, Executive Director
James W. Carter, Division Director

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
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FACSIMILE COVER SHEET

DATE: August 10, 1998

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TO: Beaver County Monitor
Legal Advertising
PO Box 224
Beaver Ut 84751-0224

FAX NUMBER: 1-435-387-5521

FROM: Joelle Burns

Minerals Reclamation and Development Program

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
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M/001/039

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DATE: August 10, 1998

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TO: Beaver County Monitor
Legal Advertising
PO Box 224
Beaver Ut 84713-0224

FAX NUMBER: 1-435-387-5521

FROM: Joelle Burns

Minerals Reclamation and Development Program

PHONE: (801) 538-5291
FAX: (801) 359-3940

SUBJECT: Notice of Tentative Approval - Nevada Star OK Mine - M/001/039

REMARKS: original hard copy will be forthcoming via regular mail.

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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

Michael O. Leavitt
Governor
Lowell P. Braxton
Division Director

m/001/039

August 7, 1998

Beaver County Monitor
Legal Advertising
450 North 100 East
P.O. Box 224
Milford, Utah 84751-0224

Gentlemen:

Re: NOTICE OF TENTATIVE APPROVAL - M/001/039

Attached is a Notice of Tentative Approval from the Division of Oil, Gas and Mining, Department of Natural Resources, State of Utah. This notice is also sent to you via facsimile.

It is requested that this notice be published ONCE ONLY as soon as possible, but no later than the 14th day of August, 1998. In the event that said notice cannot be published by this date, please notify me immediately by calling 538-5291.

Upon completion of this request, please send proof of publication and statement of cost to the Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Box 145801, Salt Lake City, Utah 84114-5801; phone (801) 538-5340.

Sincerely,

Joelle Burns

Joelle Burns
Minerals Secretary

jb
Attachment
m01039.new

P.01

TRANSACTION REPORT

AUG-10-98 SUN 09:08 AM

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DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
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M/001/039

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt, Governor
Ted Stewart, Executive Director
James W. Carter, Division Director

1594 West North Temple, Suite 1210
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Salt Lake City, Utah 84114-5801
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DATE: Aug 10, 1998

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 4

TO: Salt Lake Tribune
Legal Advertising
P O Box 867
SLC Ut 84110-0867

FAX NUMBER: 237-2520

FROM: Joelle Burns

Minerals Reclamation and Development Program

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
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m/001/039

FACSIMILE COVER SHEET

DATE: Aug 10, 1998

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 4

TO: Salt Lake Tribune
Legal Advertising
PO Box 4867
SLC UT 84110-0867

FAX NUMBER: 237-2520

FROM: Jaelle Burns

Minerals Reclamation and Development Program

PHONE: (801) 538-5291
FAX: (801) 359-3940

SUBJECT: Notice of Tentative Approval - Nevada Star - OK Mine m/001/039

REMARKS: original hard copy will be forthcoming via regular mail.

Should you encounter any problems with this copy, or do not receive all the pages, please call

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF TENTATIVE DECISION TO APPROVE THE MINING AND RECLAMATION PLAN FOR NEVADA STAR CORPORATION'S OK COPPER MINE, BEAVER COUNTY, UTAH	:	NOTICE OF TENTATIVE DECISION TO APPROVE NO. M/001/039

---ooOoo---

THE STATE OF UTAH TO ALL OPERATORS, TAKERS OF PRODUCTION, MINERAL AND ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS INTERESTED IN SECTIONS 5, 6, 7, & 8, TOWNSHIP 27 SOUTH, RANGE 11 WEST, SLBM, BEAVER COUNTY, UTAH.

Notice is hereby given by the Division of Oil, Gas and Mining of its tentative decision to approve Nevada Star Corporation's Mining and Reclamation Plan for the OK Copper Mine. Mining activities will effect portions of the following area: the SW 1/4 of Section 5; the South ½ of Section 6, the North ½ of Section 7, and the NW 1/4 of Section 8, T27S, R11W, SLBM, Beaver County, Utah.

The operator will employ the following mining and reclamation techniques on approximately 275 acres of Private land.

During Operations: The mining operation will consist of three phases as follows: *Phase I* - construction of a fully lined (57 acre) heap leach pad, a (2 acre) solvent extraction/electro-winning(SX/EW) processing plant, and the re-mining and leaching of 2 million tons of (previously mined) stockpiled copper ore surrounding the old O.K. Pit. The SX/EW process produces a copper sulfate electrolyte which is pumped into electro-winning cells where 99.998% pure copper is electroplated onto stainless steel sheets. The copper ore is leached with a dilute sulfuric acid solution. *Phase II* - strip mining new ore by widening and deepening the existing O.K. pit. Overburden to ore stripping ratio is approximately 1:1. Run of mine ore will be stacked on the heap and leached. *Phase III* - development of the new eastern extension of the ore zone (Mary I pit). This pit will merge into the eastern side of the O.K. pit. All environmental permits will be in place prior to initiation of operations. Reclamation bonding of this operation will occur in phases. Approval of each phase will remain contingent on adequate permitting and bonding for each phase. All process water will be contained in a fully engineered facility and all environmental controls will be in place prior to initiating leaching operations. Approximately 10 million tons of ore and 10 million tons of waste material will be produced. Variances were granted to topsoiling and reseeding requirements for inaccessible and unsafe pit benches. Variances were granted to allow pit highwalls to remain at angles steeper than 45 degrees, and to allow the pits to impound water following mining.

After Operations: The heap will be rinsed with fresh water rinsate to comply with final effluent standards set by the State Division of Water Quality. Solution in ponds will be allowed to evaporate. Remaining sludge will be tested for metals and subjected to meteoric mobility analyses. All remaining hazardous material from these ponds will be disposed of at an appropriately licensed facility. Pond liners will be folded or dozed into the pond bottoms and covered with 5-10 feet of fill. All dump slopes and heap leach pad slopes will be graded to 3H:1V, and covered with one foot of topsoil and re-vegetated. Monitoring wells will be plugged according to state requirements. A water well will remain to provide a long-term source of water for local wildlife. The processing facilities will be demolished and removed or buried onsite. Exposed concrete foundations will be broken up and buried. The process facilities area will be graded to blend with the adjacent topography and re-vegetated. All non-hazardous or non-toxic materials will be buried. Any remaining hazardous or toxic materials will be disposed of according to federal and state regulations. Approximately one foot of topsoil will be replaced on all disturbed, non-pit areas that originally had topsoil. These areas will be roughened, terraced and reseeded with the approved seedmix to allow postmining use by livestock and wildlife.

The person representing the company is Mr. Rick Havenstrite; Phone (435) 867-0557. Nevada Star Corporation is fulfilling obligations under the Utah Mined Land Reclamation Act of 1975, Utah Code Ann. §40-8-18.

Any person or agency aggrieved by this tentative decision to issue approval is hereby requested to submit written protest within thirty (30) days of the date of publication to Mary Ann Wright, Associate Director of Mining, Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, Box 145801, Salt Lake City, Utah 84114-5801, setting forth factual reasons for the complaint. If no responsive written protests are received by the Division within 30 days after the last date of publication, the tentative decision of the Division will be final.

DATED THIS 7th day of August, 1998

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

for Lowell P. Braxton
Acting Director